

CLAIMS:

1. A method for processing a large programming task by a plurality of remote product devices (13) of a product manufacturing entity (80), the method comprising the acts of:

- 5 decomposing, at a main processor (server) (10) of said product manufacturing entity (80), said large programming task into a plurality of work tasks; and
receiving requests from said remote product devices (13) for said work tasks;
distributing said work tasks to said product devices (13),
10 responsive to said received requests;
receiving work task results from said product devices (13); and
combining said work task results at said main processor (server) (10) to yield an overall processing result of said large programming task.

- 15 2. The method of Claim 1, wherein said decomposing act further comprises computing, at said main processor (server) (10), an estimated time of completion for each of said plurality of work tasks.

- 20 3. The method of Claim 2, further comprising the act of re-distributing a work task to a different product device in the case where a work task result is not returned to said main processor server (10) within its estimated time of completion.

- 25 4. The method of Claim 1, wherein said act of receiving requests from said remote product devices (13) for said plurality of work tasks further comprises the act of polling said main processor (server) (10) on a scheduled basis to establish a communication session with said main processor (server) (10).

- 30 5. The method of Claim 2, wherein said scheduled basis is determined in accordance with a polling frequency parameter defined in each of said product devices (13).

6. The method of Claim 5, wherein said polling frequency parameter may be modified in said product device (13) in accordance with at least one of: (i) determining that said product device (13) is in a standby mode, (ii) determining that said product device (13) is in a state of low CPU and/or memory usage, (iii) determining that said product device (13) is undergoing a system reboot, (iv) determining that said product device (13) is currently processing a work task, (v) determining that said product device (13) has predetermined amount of disk space available for use.

7. The method of Claim 1, further comprising, prior to said distributing act, the acts of:

comparing, at said main processor (server) 10, said capabilities and preference settings of said requesting product device's with work tasks to be distributed; and

determining, based on said comparison, whether said requesting product device is suitable for receiving one or more work tasks from said main processor (server) 10.

8. The method of Claim 7, further comprising, prior to said comparing act, one of (i) retrieving said product device's capabilities and preference settings from a product manufacturer entity (80), database (14); and (ii) transferring said product device's capabilities and preference settings from said product device (13) to said product manufacturing entity (80).

9. The method of Claim 1, wherein the act of decomposing said large programming task into a plurality of work tasks further comprises the act of identifying, at the main processor (server) 10, certain of said plurality of work tasks as critical work tasks.

10. The method of Claim 9, wherein said critical works tasks are redundantly distributed by said to two or more remote product devices 13.

11. The method of Claim 1, further comprising the act of providing reward points to product owners of said plurality of product devices (13) in proportion to the amount of processing resources expended to process said work tasks.

5 12. The method of Claim 11, wherein a reward point total count is maintained by said main processor (server) 10 for each for said product devices (13) in a database (14).

10 13. The method of Claim 11, wherein said award points are redeemable for items selected from the group of items comprising: discounts toward the purchase of future products of the product manufacturer entity (80), merchandise, resort packages, airline travel, gift certificates of specified value from third party sources, unlimited warranty and service for existing product devices, free telephone minutes, and lottery chances.

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14. A system (100) for processing a large programming task comprising:
a product manufacturing entity (80) comprising:

a main processor (server) (10) configured to decompose said large programming task into a plurality of work tasks, receive requests from said plurality of remote product devices (13), distribute said plurality of work tasks to said product devices (13), receive work task results from said product devices (13); and combine said work task results to yield an overall processing result of said large programming task; and
a database (14) for storing the product device capability data for each of said plurality of remote product devices (13); and
25 a plurality of remote product devices (13) configured to request work tasks from said product manufacturing entity (80), process said work tasks and return work task results to said product manufacturing entity (80).

30 15. The system (100) of Claim 14, wherein said main processor (server) (10) is further configured to determine an estimated time of completion for each of said

plurality of work tasks and identify certain of said plurality of work tasks as critical work tasks.

16. The system (100) of Claim 14, wherein the main processor (server) 10 is
5 any suitable server computer or processor system configured to perform large programming tasks.

17. The system (100) of Claim 14, wherein said product manufacturer entity
(80) further includes a distribution management function (12) configured to manage the
10 decomposition of said large programming task into a plurality of work tasks, manage the reception of requests from said plurality of remote product devices (13), manage the distribution of said plurality of work tasks to said product devices (13), manage the reception of received work task results from said product devices (13); and manage the combination of said work task results to yield an overall processing result of said large
15 programming task.

18. The system of Claim 12, wherein each of said plurality of remote product devices (13) includes a client program (25) for managing the reception of work tasks, managing the processing of work tasks and for managing the return of work task results
20 to said product manufacturing entity (80).

19. The system of Claim 12, wherein said client program (25) includes a plurality of preference settings, comprising: (a) an accept/reject work task setting, (b) a processing time allocation setting, (c) a disk space allocation setting, (d) polling
25 frequency setting, (e) a memory allocation setting, (f) a CPU usage type setting, (g) reward type setting (h) a work task type setting (i) a standby mode type setting, (j) an automatic processing type setting, and (k) a resume old task type setting.